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ABSTRACT

Three experiments involving 345 children aged 5-6, 7-8, and 12-13 were performed to investigate the development of children's motives to help. Two experimental paradigms were developed to determine children's motives for helping behavior in a specific behavioral context. In the first paradigm, situations were created in which children had the opportunity to help. Each situation consisted of specific conditions for the performance of the helping act which reflected the motive to help. The situations were arranged in a regressive order: the child who did not help in the situation reflecting an advanced motive (e.g. altruistic), had the opportunity to do so in another situation which reflected a less advanced motive (e.g. to gain social reward). In the second paradigm, the situations were also structured in such a way that the condition of each situation reflected the motives as to why the child helped, but each child was placed only in one experimental situation. The first two experiments were performed using the first paradigm and the third one was performed using the second paradigm. The results of all three experiments indicate that the quality of the helping behavior changes with age; the older the children, the more they helped under both altruistic and normative conditions. These results support the contention that helping behavior develops sequentially.
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Further Evidence Regarding the Sequential Development of Helping Behavior

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Abstract

One of the important directions of research in the area of prosocial behavior is the study of the motives behind the helping acts. Bar-Tal, Raviv, and Sharabany (Note 1) suggested that different motives behind children's helping behavior are result from sequential development of helping behavior and that the altruistic act is a developmental achievement. Specifically, they proposed that helping behavior develops in seven stages in relationship to cognitive, moral and social perspective development. The empirical evidence for their theory was based, however, on studies in which children were asked to explain the motives for helping acts verbally.

The purpose of the present paper is to report on empirical behavioral evidence which supports the theory described above. Specifically, research paradigms were developed which enable the actual behavioral testing of the hypotheses concerning the stages of the development of helping behavior.

Three experiments were performed altogether with children of the ages 5-6, 7-8, 9-10, and 12-13. In each experiment the children were placed in different situations which were structured to represent the different required conditions of the developmental stages, as conceptualized by Bar-Tal and his colleagues, in which the possibility of carrying out helping acts existed. In addition, they were asked to indicate their motives for performing helping behavior. The results of all three studies showed that children of different ages help as a consequence of different motives. These results support the contention that the helping behavior develops sequentially.

Further Evidence Regarding the Sequential

Development of Helping Behavior

The Development of Motives for Helping Behavior

In recent years it has become evident that the study of children's motives for helping is a major research direction in the social developmental psychology of prosocial behavior, since helping behavior may be performed as a result of many different motives. For example, children may extend help expecting external rewards, in order to comply with others' requests, or in order to avoid negative social sanctions. Although in each of these cases, the children do, in fact, help, it seems that each type of behavior must be qualitatively disparate from the others in view of the different motives precipitating the helping act. Moreover, data has been obtained indicating that while individuals can perform helping acts from an early age, the motives for these acts might change as age progresses. It is therefore suggested that the development of helping behavior can be understood through the study of the motives to help. The main purpose of the present paper is to describe studies which investigated the development of children's motives to help. However, before turning to the description of the experiments and their findings, I shall discuss, in short, the theoretical and empirical basis of these studies.

The research described below was based on Bar-Tal, Raviv, and Sharabany's (Note 1) conception that young children carry out helping acts mainly in compliance with external authority. But, as they develop cognitive skills such as the ability to understand another's perspective, delay gratification, consider alternative modes of action, or reason morally according to post-conventional principles, children become capable of initiating helping acts even without expecting external reward in return. Specifically, seven develop-

mental stages of helping behavior were suggested:

1. "Compliance with concrete - defined reinforcement" in which the child carries out a helping act following a request or command accompanied, however, by an obvious promise of a concrete reward or an explicit threat of punishment;
2. "Compliance" in which the child carries out the helping act only in order to comply with a request or command of authority;
3. "Internal initiative with concrete reward" in which the child initiates a helping act with the expectation of receiving a concrete, defined, reward in return;
4. "Normative behavior" in which the child carries out a helping act in order to comply with societal demands and gain social approval;
5. "Generalized reciprocity" in which the individuals initiate a helping act because of the belief that a regulated system of generalized reciprocity controls helping behavior (one day when they need help, they will be helped in return);
6. "Altruism" in which the individuals voluntarily initiate helping acts as ends in themselves, as a result of moral convinctions and without expecting external rewards; and
7. "Idealistic altruism" in which individuals initiate altruistic behavior without even expecting internal rewards.

This conception is based on Kohlberg's (1976) theory that as children develop more advanced cognitive social perspective, and moral orientations, they are capable of performing helping acts of a higher moral quality. Indeed, empirical evidence indicates that: a. The frequency and extent of helping behavior increase with age (e.g. Handlon & Gross, 1959); and b. the frequency and extent

of helping behavior are related to general cognitive development (e.g. Larsen & Kellogg, 1974), the development of social perspective (e.g. Krebs & Sturrup, 1974), and moral development (e.g. Emler & Rushton, 1974).

Bar-Tal, Raviv, and Sharabany (Note 1) presented a number of studies to support their contentions regarding the sequence of helping behavior development (e.g., Baldwin & Baldwin, 1970; Dreman & Greenbaum, 1973; Levin & Beckerman-Greenberg, in press; Uguret Semin, 1952; Bar-Tal, Raviv, & Shavit, Note 2). All these studies obtained data regarding children's motives for helping behavior by means of verbal reports. In some studies children performed helping acts and were asked to indicate as to why they helped, while in other studies children were presented with hypothetical situations and were asked questions the answers to which could indicate the children's dominant motive for helping behavior. The results of these studies showed that the expressed motives for helping behavior develop with age.

The studies which based their findings on children's verbal reports have two major shortcomings. Children may distort their answers according to notions of social desirability and children do not necessarily behave according to the motives expressed. In order to overcome these shortcomings, we have developed two experimental paradigms which enable the determination of children's motives for helping behavior in a specific behavioral context. In the next section of this paper these paradigms will be discussed, the performed studies described, and conclusions will be drawn.

Empirical Evidence Regarding the Development of Motives

The experimental paradigms presented the children with the opportunity to be helpful; and the motive to help was determined on the basis of the situation in which the behavior took place. In the first paradigm situations were

created in which children had the opportunity to help. Each situation consisted of specific conditions for the performance of the helping act which reflected the motive to help. The situations were arranged in a regressive order in such a manner that a child who did not help in the situation reflecting an advanced motive (e.g., altruistic), had the opportunity to help in another situation which reflected a less advanced motive (e.g., to gain social reward). In the second paradigm each child was placed only in one experimental situation. These situations were also structured in such a way that the conditions of each situation reflected the motives as to why the child helped. The experimental situations in the study differed in regard to the conditions reflecting children's motives, and the selected situations represented a regressive order of motives. Two studies were performed using the first paradigm and one study was performed using the second paradigm. First, the studies of the former paradigm will be described and then, that of the latter.

Study One: Sharing Candies (Bar-Tal, Raviv, and Leiser, Note 3)

One hundred and twenty-four children comprising of three different age groups participated in this study. The groups were as follows: 42 kindergarten children (19 boys and 23 girls) aged 4½-5½; 40 second-grade children (22 boys and 18 girls) aged 6½-7½; and 42 fourth grade children (21 boys and 21 girls) aged 8½-9½.

In actual fact, as will be described below, double this number of children participated in the experiment. The children were tested in same-sex pairs, but since only one of the pair was in a position to share, only the 124 children for whom data was collected will be referred to.

Each pair of children were sent, in turn, by the teacher, to a separate room used by the experimenter. The experimenter told the children that she was

investigating their ability to guess numbers, and explained that she would think of a number between 0 and 10 and they would then each have 3 chances to guess this number correctly. The game would be played 5 times and the winner of the pair would receive a prize. The experimenter decided randomly who the winner was and awarded him/her with 7 pieces of candy telling him/her that he/she could now do whatever he/she desired with the prize.

From this point on the actual process of examining the child's reaction started. Each winner was automatically placed in the situation in which he could share the candy - but failing to do so, additional opportunities, corresponding to the hypothesized stages of helping behavior, were then made available.

In the first situation of the experiment - the altruistic condition (A), the experimenter left the room under the pretext that she had to talk to the secretary for a few minutes thereby leaving the children on their own. After 3 minutes on her return to the room, the experimenter unobtrusively checked whether the winner had shared the candy with the second child ("the loser"). If he/she had indeed shared, his/her motives for sharing were ascertained, the children were requested not to talk about the experiment and were sent back to the classroom. In the event of the winner not sharing the candy, the experiment continued into the second phase.

In the second situation - the normative condition (N), the experimenter told the children that she would first read them a story and then tell them what to do. The story read as follows: "A child was invited to a birthday party where he/she received a bag of candy. On his/her way home he/she met a friend who asked about the contents of the bag. The child responded that he/she had received some candy and invited his/her friend to share it with him/her. Both of then then sat down and ate the candy. It is very nice to share

candies with a friend. Good children share candy with other children who don't have any. (The purpose of the story reading was to remind the children of the norm prescribing giving, Leeds, 1963). After finishing the story, the experimenter said that she had to talk to the teacher for a while and left the room for 3 minutes. On her return, she again checked unobtrusively whether the winner had shared the candy with the loser. If he/she indeed had done so, the experimenter ascertained his/her motives, debriefed the children and sent them back to the classroom. If he/she had not shared the candies the experiment continued into the third phase.

In the third situation - internal initiative and concrete reward (IICR), the experimenter told the children that during her conversation with the teacher, the teacher had mentioned that any child who shares candy with others, would be given the leading role in the play she was preparing for a coming holiday. At this point the experimenter busied herself with the papers - arranged them and wrote notes - thus leaving the children free for 3 minutes. If the winner shared the candy with the loser, the procedure of inquiry and debriefing was performed. If, however, the winner had still not shared the candy, the experiment continued into the next phase.

In the fourth situation - compliance (C), the experimenter told the winner to share the candy with the other child. If he/she shared, he/she was interviewed by the experimenter, and the children were debriefed. If he refused to share, the experiment progressed into its last stage.

In the fifth condition - compliance and concrete, defined reinforcement (CCDR), the winner was told to share the candy and promised a big prize in return. In this last phase no child refused to share, and after being interviewed as to the motive for sharing, the child was awarded 10 candies.

Since preliminary analysis showed no evidence of sex differences in the data collected for the boys and girls, results obtained for both sexes were combined. Furthermore, two experimental conditions, N and IICR, were markedly underrepresented incorporating only 6 children between them for all grades. We therefore combined the N and A situations, their common feature being the voluntary initiation of sharing without any promise of external reward. Similarly, IICR was combined with C since both situations involved gaining the approval of an authority (the teacher or the experimenter).

The distribution according to age for the three combined experimental situations (noted above) is presented in Table 1. A X^2 analysis indicates a significant relationship between the age of the children and the stage of experimental situation, $\underline{X}^2(4)=17.35$, $\underline{p}<.01$. As Table 1 shows, while 38% of

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Insert Table 1 about here

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the 4th grade children shared in the A and N conditions, only 7% of the kindergarden-aged children did. Conversely, while 24% of the youngest group shared only in the final CCDR condition, just 2% (one child) of the oldest group did. That is, the older the children, the more they shared in altruistic and normative situations.

The answers of the children regarding their motives for sharing were classified on the basis of the Bar-Tal et al. (Note 1) theory of stages of helping behavior development, by two judges with 92% interjudge agreement. The following seven working categories were determined:

Category 1 - Sharing was done because of the promised prize (e.g., "You promised me a prize;" "I wanted the Prize").

Category 2 - Sharing was done because the experimenter told the child to do so ("You told me to do so;" "Because when an adult tells me to do something, I do it").

Category 3 - Sharing was done because the child believed that he/she would receive a concrete reward for performing the act ("If I share, he/she will help me later with my honework").

Category 4 - Sharing was done on the basis of a normative belief prescribing sharing with other children. Conformity with this norm gains social approval for the person ("It's nice to share;" "It is written in the Bible that You shall love thy neighbor as thyself").

Category 5 - Sharing was done on the basis of a belief in a general social rule that people who share or help are shared with helped in return, when they are in need ("Next time, when I need something, somebody will also share with me").

Category 6 - Sharing was done on the basis of personal willingness to share, without any expectation of receiving an external reward (social or material), but with an expression of self-satisfaction ("I like to share in order to give others satisfaction").

Category 7 - Sharing was done on the basis of personal willingness to share, without expressed expectation of any kind of reward ("Candy should be shared to make the other child happy").

Because of the small number of children who expressed categories 1, 2, 5 and 6, we combined the seven categories into three: 1, 2, and 3 represented lower-level motives; 4 and 5 were normative; and 6 and 7, altruistic.

A X^2 analysis of the relationship between age and categories indicated a significant relationship, $\underline{X}^2(4)=10.98$, $p<.05$. The distribution of the children's

reported motives (presented in Table 2) indicates that while among the youngest group 45% expressed low level motives, only 19% of the oldest group did so. Also, 19% of the oldest children expressed high level motives, whereas only 5% of the youngest group did so. That is, the older the children, the more often they express more advanced motives for sharing.

Insert Table 2 about here

Table 3 shows the distribution of children according to categories of expressed motives in experimental conditions. The analysis of this relationship

Insert Table 3 about here

yielded $\underline{X}^2(4)=11.07$, $p<.05$. The data indicate that while only 11% of the children who shared in the high-level A or N conditions expressed low-level motives, 53% of the children who shared in the low-level CCDR condition expressed similarly low-level motives. Conversely, 14% of the children who shared in the A or N condition expressed compatible high-level motives, whereas none of the children who shared in the CCDR condition expressed these motives. This result indicates that the children on the whole expressed their motives for sharing, without considering independently of the specific experimental condition in which they shared. This finding eliminates the possibility that the motives expressed merely reflected the characteristics of the experimental condition in which the child shared.

Although the relationship between expressed motives and level of sharing indicates that the majority of children who shared in the condition of compliance and promise of external reward (CCDR) also explained their behavior

with primitive motives (see Table 3), the majority of children who shared in other conditions used more advanced motives - principally giving expressions of normative or generalized requirements of reciprocity - as did close to half of those children exhibiting CCDR sharing.

Study Two: Donation to Crippled Children. (Raviv, Bar-Tal and Levis-Levin, Note 1)

The subjects participating in this study were 111 boys of three age groups: 39 boys in grade 4 (aged 9-10); 36 boys in grade 6 (aged 11-12); and 36 boys in grade 8 (aged 13-14).

In each school the experiment took place in the nurse's office in which a big, one meter high doll, representing a crippled child with crutches was prominently displayed next to the experimenter's table. The doll advertised the "March of Dimes: campaign for the collection of money for crippled children, and a transparent money box containing 5 coins and a shield saying "Children, help crippled children" was attached to it.

The pupils were sent individually to the experimenter who explained that she was studying the effect of age on the performance of tasks requiring manual dexterity. She added that children who achieved a satisfactory level of performance would be awarded with a sum of money as a prize. Just before starting the test the experimenter "by chance" looked at the doll and remarked: "I noticed this campaign in other schools as well", in order to ensure that the child had noticed the doll. In the course of the experiment, the children were required to perform two tasks: to mark x's in squares printed on pages and to trace circles aided by a coin. The duration of the performance was measured by the experimenter with a stopwatch. On completion of the tasks, each child was informed that he had achieved the baseline and was therefore eligible for the prize. The experimenter then awarded the child with 1.5

Israeli lira in 15 coins of 10 agura each and told him that he could now do whatever he wanted with the prize.

From this point on, the actual process of examining the boys' behaviour commerced. Each child was put in the position in which he could donate money to crippled children, and in the event of failure to do so immediately, additional opportunities for donation were created. Each opportunity differed concerning the actual conditions of the situation in accordance with two stages proposed by Bar-Tal et al, (Note 1).

In the first situation of the experiment - the altruistic situation (A), the experimenter left the room for 2 minutes after "suddenly remembering" that she had to call someone. On her return to the room she looked at the money box to ascertain whether the child had donated money (the coins already in the box were of different sizes and amounts from the 10 agura coins in the child's possession, thus allowing the experimenter to easily detect whether money had been donated or not). If money had been donat , the child was casually asked by the experimenter (in order to decrease the possibility of receiving socially desirable answers) why he had done so. The child was then requested to perform a third short task (digit-symbol substitution), debriefed, and sent back to the classroom. If the experimenter perceived, however, that money had not been donated, the experiment progressed into the second situation.

In the second situation - the normative (N), just as the child was being given the third task, a female collaborator, who presented herself as a volunteer of the "March of Dimes" campaign entered her room. She excused the disturbance and proceeded to explain that she was passing through the schools of that particular suburb in order to check the money box and put up a poster. She asked the experimenter whether she had noticed if children were donating money. The experimenter countered that since she wasn't the nurse, she didn't know, but

pointed out that there were some coins in the money box. The collaborator remarked "It is nice when children help other children" and the experimenter started to look through her files for two minutes in order to allow the collaborator to hang up the poster. An opportunity was thus created for the child to donate money. After hanging up the poster, when the two minutes were up, the collaborator gave the experimenter a package of leaflets. If the child had donated money during this period of time, his motives were ascertained, he was asked to complete the third task, debriefed, and sort back to the classroom. If, however, the child failed to donate money during this period of time, the collaborator asked the experimenter to distribute the leaflets to the children and left the room. The experimenter then continued into the third experimental situation.

In the third situation - internal initiative and concrete reward (IICR), after the child had completed the third task, he was given one of the leaflets left by the collaborator. While the child was reacting the message, which announced that children who contributed money to the campaign would be able to participate in a lottery and perhaps win a valuable prize, the experimenter arranged her papers and paid no attention to him. If he then donated money, his motives were queried, he was debriefed, and sent back to the classroom. If he did not donate, the experimenter proceeded to the fourth situation.

In the fourth situation - compliance (C), the experimenter asked the child directly "Wouldn't you like to donate some of your money to crippled children?" If the child complied, his motives were ascertained, he was debriefed and sent back to his classroom.

Children who did not donate in the fourth situation were also debriefed and sent back to class. In the debriefings none of the children expressed any suspicion as to the experimental procedure.

The children's answers regarding their motives for donating were categorized by two judges into five stages of helping behavior development as theorized by Bar=Tal et al. (Note 1). The interrater agreement was 81%. The following categories were determined:

Category 1 (Compliance) - The child donated because he complied with a request (e.g., "You told me to donate").

Category 2 (Internal initiative with concrete reward) - The child donated because he expected to gain a concrete reward in return for his donation. (e.g., "I donated to participate in the lottery and wi a prize.")

Category 3 (Normative) - The child donated the money to fulfill the requirement of the norm of giving, in order to gain social approval and avoid negative sanctions (e.g., "It is nice to donate," "It is an obligation to donate to needy people").

Category 4 (Generalized reciprocity) - The child donated because he believed in a general social rule that people who help are helped in return when they are in need. (e.g., "If I were sick, people would also donate to me").

Category 5 (Altruism) - The child donated as a result of personal willingness, without expecting any kind of reward (e.g., "I donated in order to help the crippled children - the money will be used for medicine and treatment").

A X^2 analysis of the relationship between experimental situations and age yielded a significant result, $\underline{X}^2(8)=15.76$, $p<.05$. The distribution according to age for the experimental situations is presented in Table 4, where we note that while only 26% of the 4th grade boys donated in the A or

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Insert Table 4 about here

N conditions, 48% of the 6th grade boys did so, and 61% of the 8th grade boys donated in these two situations. Conversely, while only 6% of the oldest boys did not donate in any of the experimental situations, 8% of the 6th grade boys refused, as did 25% of the 4th grade boys.

The relationship between the experimental situation and reported motives was examined using the X^2 test. Because several cells were underrepresented, motive categories 1 and 2 and 4 and 5 were combined. The X^2 analysis yielded a significant result, $X^2(6)=35.07$, $p < .01$. The actual distribution of the boys' reported motives (presented in Table 5) indicates that: a. while

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Insert Table 5 about here

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none of the boys who donated in the A situation expressed low-level motives, 86% of them expressed high-level motives; b. while none of the boys who donated in the N situation expressed low-level motives, 76% of them expressed high-level motives; c. while 43% of the boys who donated in the IICR situation expressed low-level motives, 30% of them expressed high-level motives; and d. while 26% of the boys who donated in the C situation expressed low-level motives, 24% of them expressed high-level motives.

Relationship between age and reported motives

A X^2 analysis of the relationship between age and the categories only approached the accepted level of significance, $X^2(6)=11.7$, $p < .10$.

Study Three: Helping to Complete a Task (Guttmann, Bar-Tal and Leiser, Note 5)

48 pairs of kindergartener's (aged 4½-5½) and 48 pairs of second-grade pupils (aged 6½-7½), all in all 96 pairs of boys, participated in this experiment.

The pairs were formed according to the experimenter's instructions that the two boys in each pair should have no special relationship between them - neither friendly nor antagonistic.

Within each age group, the pairs were randomly assigned to one of the 4 treatment conditions described below. Out of each pair, one child was randomly chosen as the subject and he alone was studied for the dependent variables, thus making the total sample - 96 children.

In the kindergarten and schools participating in this study, a separate room was allocated for the experimenter's use in which all the materials were arranged on two tables. On the one table, in the corner of the room, were various toys selected on the basis of their popularity and interest for the children, according to the teachers' judgement. (e.g. lego and puzzles). On the second table, in the middle of the room, was a mixed-up pile of 10 x 16 cm. cards. 40 of the cards were marked with red or yellow circles (20 of each color), and an additional 120 cards were marked with either blue or brown circles (60 of each color).

When the subjects entered the room, the experimenter told them that he wasn't quite ready for them and instructed them to play with the toys in the meantime. After ascertaining that they were somewhat involved in the toys (about 3-4 minutes), the experimenter called the children over to the other table and told them that he was in charge of game materials for all the kindergartens/schools. He added that he was interested in seeing how children use different games and explained to the pair that the pile of cards on the table had been mixed up by other children and their task would be to rearrange the cards according to color. The designated subject was told to put the red and yellow cards into 2 different piles, while the other child was given the more difficult task of arranging the larger number of cards (the blue + brown) into

2 separate piles. The children were then told that if one of them finished first, he could do one of the following: 1) go back to his class immediately; 2) sit quietly and wait for the other to finish; 3) help the other (see below); 4) resume playing with the toys on the other table. These four options were stated explicitly so that it would be clear to the child that they were all equally permissible options, thus, trying to minimize their feeling compelled to do what they might think "is or is not allowed."

Additionally, one of the four experimental manipulations was randomly presented with Option 3 - "Help the other one ...":

a. Tangible reward (TR) "... and if you help, I'll give you something good, a prize."
b. Social reward (SR) "... and if you help, I'll let your teacher know that you helped and she will announce it in class."
c. Undefined reward (UR) "... and you know that those who help, will be helped by others."
d. No reward (NR) - no incentive was given.

The children were then given all the time they needed to sort out the cards, and as it turned out, the child designated as the subject and given the easier task always finished first, and was thus forced to chose one of the alternatives presented to him.

If the subject helped the second child, the experimenter asked him why he had helped after they had finished.

In order to examine the effect of age and experimental situations on helping, the 2x4 (age x experimental situation) design was analyzed by the contingency partitioning procedure suggested by Winer (1971). Table 6 shows the number and percentage of those who helped under the various experimental situations in the two age groups. Differences in helping were found according

Insert Table 6 about here

to age, $\underline{x}^2(1) = 8.08$, $\underline{p} < .01$, concurring with the findings of many other studies which demonstrated the increase of helping behavior with age. Regarding differences in help-giving under different kinds of reward situations, the results showed that while only 33% of the children helped in the no reward (NR) situation, 71% of the children helped in both the SR and TR conditions $\underline{x}^2(3) = 9.32$, $\underline{p} < .05$, - however, the expected differences between SR and TR were not evident. Although the interaction effect was not significant, an examination of the results clearly shows some age difference with respect to helping behavior under the various reward conditions. Among the younger children, a low percentage (16%) agreed to help without promise of reward, whilst in each of the reward situations, the majority of children agreed to help. (During the analysis of motives for the helping act, it became apparent, however, that the younger group of children did not understand the UR manipulation, thinking that in return for help a reward would also be given.) While 50% of the older children helped in the NR and UR conditions, the great majority of them helped in both the SR and TR conditions. (Moreover, their reasons for helping indicated an understanding of the "undefined reward.")

The reasons for helping given by those who did help were categorized in correspondence with the four experimental situations:

a. TR included all statements which referred to the tangible reward offered by the experimenter.

b. SR - "It is nice to help" or "One has to help" were typical statements included in this category. The distinctive feature was anything implying a dependence upon social requirements, or relation to social sanctions.

c. UR involved some expression of reciprocity, e.g., "People need to help each other" or "... so next time he will help me."

d. NR statements included such general expressions as "I like to help" or "I finished first and he hadn't finished," where no particular motivation is given.

The number and percentages of the reasons given by the children are shown in Table 7 according to the four categories of reasons. The existence of a relationship between age and reasons for helping is made evident by a significant x^2 result obtained ($\underline{x}^2=8.8$, $p<.05$). Thus, while only 11% of the kindergarten children explained their helping act with high-level (less-reward oriented) motives, 43% of the second grade children did so. Conversly, while 88% of the kindergarten children explained their helping act referring to expectations of a concrete reward, only 57% of the second grade children did so.

Insert Table 7 about here

Conclusions

The reported results of the three studies support the supposition that the motives for helping behavior develop with age. Although the motor act of helping in itself might be the same across various ages, the motives for the act change, and as a result, the conditions under which the individual carries out helping behavior vary. Thus, the quality of the behavior changes with age. Only older children who have developed the cognitive skills necessary to perform altruistic behavior and who have learned how to carry this out, are able to behave altruistically.

The findings of the studies indicated a relationship between age and motives to help, as demonstrated by specific behavior. That is, the older the children, the more of them helped under the altruistic and normative conditions. They initiated the sharing themselves, without any promise of external reward, and in the altruistic condition, they did so without being reminded of the social norm involved. Conversely, the younger the children, the greater the number that helped under the condition of compliance with the promise of a concrete - defined reward in return for help. Also the findings regarding the relationship between age and expressed motives for sharing indicate that, the older the children, the more frequent the expression of more advanced motives for sharing, and the younger the children, the more frequent the expression of less-advanced motives for sharing. The younger children tended to report that they helped because of either a compliance with the experimenter's request, or a promise of an external reward. The older children tended to report that they helped because of normative obligations, generalized reciprocity expectations, or altruistic motives.

These results indicate that the development of helping behavior should be investigated through the study of motives to help. Children can carry out helping behaviors from an early age, but the age differences may well be indicated in the specific motives behind the helping behavior. Thus, the quality of the helping behavior changes with age.

As children develop more advanced cognitive, social perspective and moral orientations, they are capable of performing helping acts of a higher moral quality. It should not be however inferred, that older children never help as result of egoistic motives or compliance. It is to say only that younger children are not able to help as result of high level moral motives. In this vein, Kohlberg (1976) has suggested that "there is a horizontal sequence of steps

in movement from logic to social perception to moral judgment .,... There is one final step in this horizontal sequence: moral behavior. To act in a morally high way requires a high stage of moral reasoning" (p. 32). However, the development of cognitive, social perspective and moral orientations is only one necessary condition for performing altruistic acts. The children also have to learn to operationalize these potentials. This learning process is related to cognitive, social perspective and moral development. Thus, while in the early stages of development it is necessary to use such social learning techniques as orders or promises of tangible rewards, and in later stages, social rewards are suffice enough. In the more advanced stages there is no need to use external techniques, and children might utilize internal expectations as mechanisms which perpetuate the performance of helping acts.

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Table 1

Distribution of Children Who Shared, Shown According to Experimental Situations and Grade (Bar-Tal, Raviv & Leiser, Note 3)

Experimental conditions	Grade K	2nd	4th
A and N	3 (7%)	9 (22.5%)	16 (38%)
IICR and C	29 (69%)	27 (67.5%)	25 (60%)
CCDR	10 (24%)	4 (10%)	1 (2%)
Total	42 (100%)	40 (100%)	42 (100%)

Table 2

Distribution of Children According to Expressed Motives for Sharing in the Three Age Groups (Bar-Tal, Raviv, & Leiser Note 3)

Categories	Grade K	2nd	4th
1, 2, 3	19 (45%)	10 (25%)	8 (19%)
4, 5	21 (50%)	27 (67.5%)	26 (62%)
6, 7	2 (5%)	3 (7.5%)	8 (19%)
Total	42 (100%)	40 (100%)	42 (100%)

Table 3

Distribution of Children According to Expressed Motives for Sharing in the Experimental Situations (Bar-Tal, Raviv, & Leiser, Note 3)

Categories	Experimental Conditions		
	A and N	IICR and C	CCDR
1, 2, 3	3 (11%)	16 (20%)	8 (53%)
4, 5	21 (100%)	53 (65%)	7 (47%)
6, 7	4 (14%)	12 (15%)	0 (0%)
Total	28 (100%)	81 (100%)	15 (100%)

Table 4

Distribution of Children Who Donated, According to Experimental Situations and Grade (Raviv, Bar-Tal, Lewis-Levin, Note 4)

Experimental situation	Grade 4th grade	6th grade	8th grade
A	5 (13%)	6 (17%)	12 (33%)
N	5 (13%)	11 (31%)	10 (28%)
IICR	12 (31%)	12 (33%)	7 (19%)
C	7 (18%)	4 (11%)	5 (14%)
Did not do donate	10 (25%)	3 (8%)	2 (6%)
Total	39 (100%)	36 (100%)	36 (100%)

Table 5

Distribution of Children According to Expressed Motives for Donating in the Experimental Situations (Raviv, Bar-Tal, Lewis-Levin, Note 4)

Category	Experimental Situation			
	A	N	IICR	C
1	0	0	0	2 (13%)
2	0	0	13 (43%)	2 (13%)
3	3 (14%)	6 (24%)	8 (22%)	8 (50%)
4	1 (5%)	5 (20%)	3 (10%)	3 (19%)
5	17 (81%)	14 (56%)	6 (20%)	1 (5%)
Total	21 (100%)	25 (100%)	30 (100%)	16 (100%)

Table 6

Number and Percentage of Two Age Groups Helping in Each of 4 Experimental Situations (Guttmann, Bar-Tal, & Leiser, Note 5)

Age	Experimental situation				
	NR	UR	SR	TR	Total help
4½ - 5½	2 (16%)	7 (58%)	6 (50%)	8 (66%)	23 (48%)
6½ - 7½	6 (50%)	6 (50%)	11 (92%)	9 (75%)	32 (66%)
Total help	8 (33%)	13 (54%)	17 (71%)	17 (71%)	55 (57%)

Note: In each cell n = 12.

Table 7

Number and Percentage of Type of Expressed Motives Given by Two Age Groups (Guttmann, Bar-Tal, & Leiser, Note 5)

Age	Categories of motive				
	NR	UR	SR	TR	Total
4½ - 5½	2 (8.3%)	1 (4.12%)	13 (54.3%)	8 (33.3%)	24 (100%)
6½ - 7½	11 (36.6%)	2 (6.8%)	14 (46.6%)	3 (10.0%)	30 (100%)